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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,858	01/21/2005	Franciscus Lucas Antonius Johannes Kamperman	NL 020681	1225
24737	7590	05/01/2008	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			SCHWARTZ, DARREN B	
P.O. BOX 3001			ART UNIT	PAPER NUMBER
BRIARCLIFF MANOR, NY 10510			4193	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/521,858	KAMPERMAN, FRANCISCUS LUCAS ANTONIUS JO	
	<b>Examiner</b>	<b>Art Unit</b>	
	DARREN B. SCHWARTZ	4193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 21 January 2005.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-13 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 21 January 2005 is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1.) Certified copies of the priority documents have been received.  
 2.) Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>01-21-05 09-06-05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____ .                        |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “305” of Figure 2 has been used to designate both a memory and a transmitter. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: elt “415” of Figure 4. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet”

or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: second device “309” and device “401.” Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The disclosure is objected to because of the following informalities: page 9, ¶2, discloses “...memory **417** via a communication bus.” It is recommended that this be changed to “...memory **415** via a communication bus **417**.”

Appropriate correction is required.

***Claim Objections***

5. Claims 8, 10 and 13 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 8 and 10 merely recites a method of determination according to claim 1. Claim 13 is merely reciting an apparatus according to claim 11.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 4-9 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Lundkvist (WO 02/035036 A1), hereinafter referred to as Lundkvist.

Re claims 1 and 11: Lundkvist teaches a method for a first communication device [Fig 1, elt 1: vehicle] to performing authenticated distance measurement between said first communication device [Fig 1, elt 1: vehicle] and a second communication device [Fig 1, elt 2: portable unit] (Abstract, lines 9-11), wherein the first [Fig 1, elt 1: vehicle] and the second communication device [Fig 1, elt 2: portable unit] share a common secret [e.g. asymmetric key pair, same key, random number O\_RND and resultant of f(x), ]; see page 7, lines 25 - page 8, line 2] and said common secret is used [encryption/decryption ]for performing the distance measurement [Abstract: lines 9-11] between said first and said second communication device (Fig 2; page 3, lines 27-30; page 6, lines 5-15; page 8, lines 19-28; page 8, lines 8-10).

Re claims 2 and 12: Lundvist teaches the authenticated distance measurement is performed according to the following steps,

- transmitting a first signal [first signal X] from the first communication device [Fig 1, elt 1: vehicle] to the second communication device [Fig 1, elt 2: portable unit] at a first time t1 (Fig 2, elt "MESSAGE X IS DETERMINED AND X IS SENT" and elt: " $\rightarrow X$ "; page 8, lines 11-17), said second communication device [Fig 1, elt 2: portable unit] being adapted for receiving said first signal (Fig 2, elt "X IS RECEIVED AND DECRYPTED;" page 8, line 19), generating a second signal [Fig 2, elt "F(X) IS DETERMINED AND Y1 IS SENT" and elt: " $\leftarrow Y_1$ "; page 8, lines 20-21] by modifying the received first signal according to the common secret and transmitting the second signal to the first device (page 8, lines 20-22). The Examiner holds that the "common secret" can be any of the following: asymmetric key pair, same key, random number O\_RND and resultant of f(x).
- receiving the second signal at a second time t2 (Fig 2, elt "Y1 IS RECEIVED, DECRYPTED, F(X) AND T1 ARE CHECKED"; page 8, lines 23-24),
- checking if the second signal [Fig 2, elt " $\leftarrow Y_1$ "] has been modified according to the common secret (page 8, lines 26-27),
- determining the distance between the first and the second communication device according to a time difference between t1 and t2 (Fig 2, elt T1; page 3, lines 22-25; page 8, lines 24-28).

Re claim 4: Lundvist teaches the step of checking if the second signal [Fig 3, elt Z corresponds to Fig 2, elt Y] has been modified according to the common secret is performed by the steps of,

- generating a third signal [Fig 3, elt Y2] by modifying the first signal [Fig 3, elt X corresponds to Fig 2, elt X] according to the common secret (page 9, lines 1-14),  
- comparing the third signal with the received second signal (Fig 3, elt “F(X), F(Z) AND T2 ARE CHECKED;” page 9, lines 10-14). The Examiner holds that the “common secret” can be any of the following: asymmetric key pair, same key, random number O\_RND or E\_RND and/or resultant of f(x).

Re claim 5: Lundvist teaches the first signal [Fig 2, elt X] and the common secret are bit words and where the second signal [Fig 2, elt Y1] comprises information being generated by performing an XOR between the bit words (page 8, lines 1-2). The Examiner holds the Lundvist teaches symmetric key cryptography between the two exchanging parties. As such, Lundvist clearly anticipates XOR cipher.

Re claim 6: Lundvist teaches the common secret has been shared before performing the distance measurement, the sharing being performed by the steps of,  
- performing an authentication check from the first communication device on the second communication device, by checking whether said second communication device is compliant with a set of predefined compliance rules (page 8, lines 19-28; in particular, lines 27-28 where the lock is unlocked if  $E_{SVAR} = f(O_{RND})$  where  $E_{SVAR}$  is a specific function of the first parties information and  $O_{RND}$  is a nonce generated by the verifier; see also the second embodiment: page 9, lines 1-13),

- if the second communication device is compliant [verification], sharing said common secret by transmitting said secret to the second communication device (page 8, lines 27-28).

Re claim 7: Lundvist teaches the authentication check further comprises checking if the identification of the second device [E\_ID] is compliant with an expected identification (page 9, lines 1-13; particularly “*control unit 70 creates namely a message that consists of identity information E\_ID that is unique to the unit 2 and a random number E\_RND...When Y2 has been received and decrypted, f(x), F(z) and T2 are checked.*”).

Re claim 8: Lundvist teaches a method of determining whether data stored on a first communication device are to be accessed by a second communication device, the method comprising the step of performing a distance measurement between the first and the second communication device (Abstract: lines 9-11; page 3, lines 17-20) and checking whether said measured distance is within a predefined distance interval (Abstract: lines 12-13; page 4, lines 12-13), wherein the distance measurement is an authenticated distance measurement according to claim 1 (page 3, lines 29-30; see claim 1 above).

Re claim 9: Lundvist teaches the data stored on the first device are sent to the second device (Fig 2, elt “MESSAGE X IS DETERMINED AND X IS SENT”) if it is determined that the data stored on the first device are to be accessed by the second device (Fig 2, elt “TRIPPING DEVICE IS ACTUATED;” page 5, lines 17-19).

Re claim 13: Lundkvist teaches an apparatus (automobile) for playing back multimedia content comprising a communication device according to claim 11.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lundkvist (WO 02/035036 A1), hereinafter referred to as Lundkvist, in view of Rofheart et al (WO 01/93434 A2), hereinafter referred to as Rofheart.

Re claim 3: Lundkvist teaches all the limitations of claim 2 as previously discussed.

However, Lundkvist does not teach the first signal is a spread spectrum signal.

Rofheart teaches the first signal is a spread spectrum signal (page 15, line 31 – page 16, line 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Lundkvist reference to utilize spread spectrum signals, as taught by Rofheart, for the purpose of providing increased resistance to natural & artificial interference and to prevent signal detection (page 16, lines 8-13).

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lundkvist (WO 02/035036 A1), hereinafter referred to as Lundkvist.

Re claim 10: Lundkvist teaches all the limitations of this claim as discussed above in claim 8.

However, Lundkvist does not teach a third communication device for performing the same.

One would have been motivated to modify Lundkvist reference at the time the invention was made to communicate with a third communication and the second communication for the purpose of not limiting the invention of Lundkvist to the lock of a car door, but to a locking device in general.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DARREN B. SCHWARTZ whose telephone number is (571)270-3850. The examiner can normally be reached on Monday-Friday 8:00 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Nguyen can be reached on 571-272-1753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DS

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4/30/2008